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Myxomycetes from China 16: *Arcyodes incarnata* and *Licea retiformis*, newly recorded for China

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Abstract — Two new records for China, *Arcyodes incarnata* and *Licea retiformis*, are reported in this paper. Materials collected from Yunnan and Fujian province are described and illustrated by scanning electron micrographs. Those specimens are deposited in the Herbarium of Mycological Institute of Jilin Agricultural University (HMJAU), Changchun, China.

Key words —taxonomy, slime molds, SEM

Introduction

Our examination of previous myxomycete collections has revealed two new records for China. One is in *Arcyodes*, which is currently accepted as a monotypic genus. The other is in *Licea,* which now comprises about 71 species (Kirk et al. 2008, Lado 2001, 2012–14), of which 13 are reported for mainland China (Chou 1937; Li & Li 1989, 1994; Li 2005) and 11 for Taiwan (Liu et al. 2002).

Materials & methods

Fruiting bodies and microscopic structures were examined using light and scanning electron microscopes (Martin & Alexopoulos 1969; Li et al. 1993, Li & Li 1995). Permanent slides were mounted in Hoyer's reagent (Martin & Alexopoulos 1969). Colored slides were prepared according to Robbrecht (1974) by spreading the capillitium in a drop of 94% alcohol, determining color after one minute, and then mounting in Hoyer's reagent. Color terms are given according to the Flora of British Fungi (1969). The specimens are deposited in the Herbarium of the Mycological Institute, Jilin Agricultural University (HMJAU).

Taxonomy

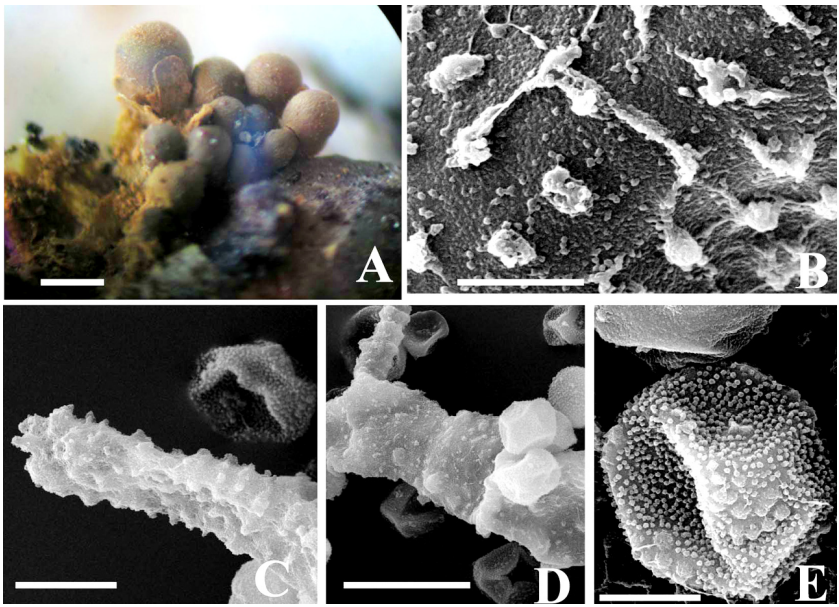

Plate 1. *Arcyodes incarnata*: A, fruiting bodies. B, inner surface of peridium. C, D, part of the capillitium and spores. E, spore. Scale bars: A = 1 mm; B, E = 2μm; C = 5 μm; D = 10 μm.

Arcyodes incarnata (Alb. & Schwein.) O.F. Cook, Science, N.Y. 15: 651, 1902. Pl. 1

Sporocarps aggregated, sessile, crowded and heaped, 0.5–0.7 mm in diam., fawn, fading to dull ochraceous. Hypothallus inconspicuous. Peridium single, membranous, somewhat opalescent, persistent, irregularly dehiscent above, yellow to colourless by transmitted light, inner surface with many prominent warts, low irregular ridges, sometime forming a net with small protuberances. Columella absent. Capillitium tubular, elastic, branched and anastomosed, pale yellow by transmitted light, mostly 4 μm in diam., with numerous inflations, decorated with many cogs and irregular edges, sometimes with a faint reticulation. Spores free, pale pink in mass, yellowish pale to colourless by transmitted light, 7–9.5 μm in diam., globose to subglobose, densely warted, with scattered groups of more prominent warts.

Specimen examined: CHINA, Yunnan Province, Puer, on the bark surface of a dead log, 28 August 2011, Zhang Bo1101 (HMJAU10301).

Comments: *Arcyodes incarnata,* which has been recorded from North America, Europe, and Africa (Martin & Alexopoulos 1969, Lado 1994), is apparently rare in Asia. The Yunnan specimen has slightly larger spores than the type specimen

(6–8 μm in diam.). However, the Yunnan and type specimen are similar in habitat on dead logs, a pale pink spore mass, faintly reticulate capillitium, and pale copper-colored sporocarps.

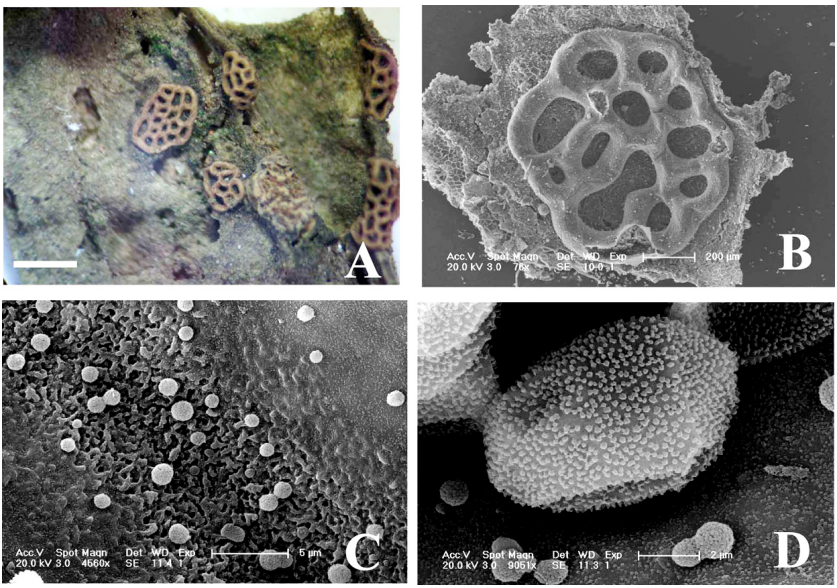

Plate 2. *Licea retiformis*: A, B, fruiting bodies. C, part of peridium. D, spore. Scale bar: A = 1 mm.

Licea retiformis Nawawi, Trans. Br. mycol. Soc. 60(1): 153, 1973. Pl. 2

Fructifications plasmodiocarps, gregarious, reticulation 0.6–3 mm in extension, pale yellowish brown, fading to pale brown. Plasmodiocarps 90–100 μm in diameter, appearing smooth on the surface. Hypothallus inconspicuous. Peridium single, membranous, firm, translucent. Dehiscence by longitudinal slit, decorated with loose small mesh. Columella absent. Capillitium absent. Spores free, pale ochraceous in mass, yellowish pale to colourless by transmitted light, subglobose to ovate, 9–11 × 8.5–12.5 μm, densely warted.

Specimens examined: CHINA, Fujian Province, Fuzhou, on the bark surface of a dead log, 9 July 2010, Li Ming0031 (HMJAU10302); Li Ming0042 (HMJAU10303).

Comments: This is the only *Licea* species with reticulate plasmodiocarps. *Licea retiformis,* which has been reported from Japan (Yamamoto 1998), Malaysia (Nawawi 1973), and Taiwan (Liu el at. 2002), is here newly recorded from mainland China. The two Fujian specimens have slightly shorter spores than the type specimen (9.3–13.5×8.5–12.5 μm, Nawawi 1973).

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